Abstract of the Disclosure

A system and method detect symbols of a modulated signal received via a plurality of channels of a wireless communications system. A symbol transmitted via the channels is initially estimated based on the channel estimate from either pilot symbol or previously estimated symbol, and then channel estimate is updated . The next estimate of the symbol is computed by using updated channel information and maximizing the expectation of the log likelihood function. The next estimate is then quantized according to the signal constellation. The quantized estimate of the symbol is compared with the previous estimate of the symbol to determine if the previous estimate of the symbol and the quantized next estimate of the symbol have converged. Otherwise, the quantized next estimate of the symbol is made as the input for the next iteration, and the updating, optimizing, quantizing, and comparing are repeated until the estimate converges.